

## Executive Summary

This Regional Biological Assessment (RBA) addresses the impacts of beach nourishment and other shore protection activities along the coast of Florida. Activities include both U.S. Army Corps of Engineers (Corps) Civil Works projects and Regulatory permit activities. This includes most shore protection measures undertaken in Florida. It does not include activities above mean high-high tide that are not part of a Corps project and not subject to Corps' Regulatory jurisdiction. This RBA is submitted to the U.S. Fish and Wildlife Service (FWS) and addresses those species subject to FWS authority under the Endangered Species Act. Sea turtles are subject to FWS when they occur naturally on the beach and out of the water. With the exception of the West Indian Manatee, species occurring in the Atlantic Ocean or the Gulf of Mexico are subject to the authority of the National Marine Fisheries Service (NMFS). The Corps already has Regional Biological Opinions with NMFS, one for the South Atlantic and another for the Gulf of Mexico.

The Florida Department of Environmental Protection (DEP) indicates that there are 825 miles of beach along the coast of Florida. DEP also indicates that 482 miles of beach are considered eroded and 385.2 miles of which are critically eroded. (In addition, there are 11.8 miles of eroded with 8.6 miles of critically eroded inlet shoreline in Florida). Critically eroded includes those shorelines for which "upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost". Approximately 155 miles of shoreline (beach and inlet) are part of a Corps' Civil Works project. Any of the critically eroded shoreline and possibly portions of other eroded shoreline would be subject to shore protection measures either as a Corps project or a Corps regulatory permit action to be constructed by a non-Corps entity.

Many shore protection activities involve the placement of sand on the beach. Many of these require a renourishment interval of two to seven years to maintain project benefits. Other important shore protection activities include (1) nearshore placement; (2) placement of suitable material from navigation dredging or sand by-passing (across navigation inlets); and (3) construction of breakwaters, groins, and other structures or features. Shore protection activities are likely to continue (if not increase) into the future due to the combination of the increasing value of shoreline property and unlikely decrease in erosive and storm damage forces.

Shore protection activities may have long-term environmental benefits by combating loss of shoreline, avoiding shoreline hardening (sea walls, revetments, rip-rap, etc.), and acting as a more gradual sand feeder to down-drift beaches. However, beach nourishment can be disruptive especially during the first year or two following placement. Temporary impacts include compaction, escarpment, burial of resources, and post construction erosion (beach profile adjustment).

This RBA addresses the various impacts to listed species and critical habitat as well as measures to minimize such impacts. To the extent practicable, measures include the following:

- avoidance of birds, bird nests, sea turtles, sea turtle nests, and listed plants
- relocation of sea turtle nests and certain species
- construction windows
- monitoring and correction of compaction, escarpment, and lighting
- other measures identified herein (see chapter 9.00)